

Those carriers played an important role in the prewar years. They were used in exercises to test the possibility of launching air attacks from their decks. During fleet maneuvers, naval aviators received excellent training in mock attacks on Pearl Harbor. Flying predawn missions from carriers, flyers theoretically destroyed the U.S. Fleet and its aircraft there. Fleet commanders were impressed by the flexibility of the air arm, but no one else seemed to pay much attention to the exercises.

Destroyers

Between the two world wars, the United States built the Navy's destroyer fleet to 184 ships. Destroyers also became prime factors in America's policy to turn over older destroyers (fig. 5-9) to Britain after the British entered the war against Germany. When the Japanese attacked Pearl Harbor, a destroyer, USS *Ward* (DD 139), was among the first American forces to fire against the enemy, sinking a Japanese midget submarine. Destroyers went on to distinguish themselves in fighting enemy submarines both in the Atlantic and Pacific theaters.

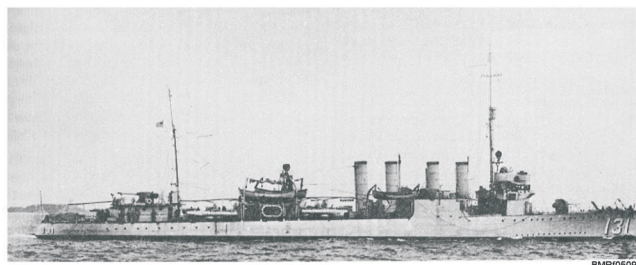


Figure 5-9.—Destroyer built shortly after World War I.

WORLD WAR II

On the morning of December 7, 1941, the “Rising Sun” came out of the west when the Japanese pounced on Pearl Harbor. On that morning, over 15 U.S. Navy ships were sunk or damaged, including all 8 battleships of the Pacific Fleet (fig. 5-10). Some 3,400 Navy and Marine Corps personnel were killed or wounded. The United States declared war on Japan the next day.

Student Notes:

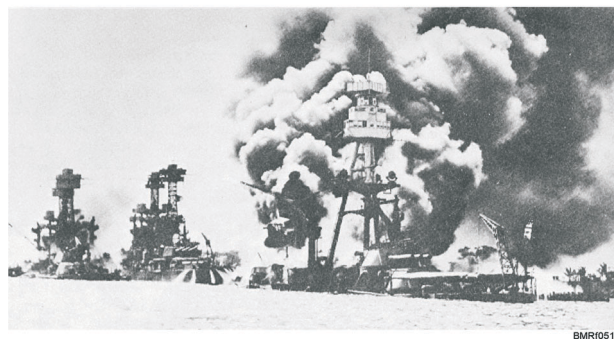


Figure 5-10.—The day of infamy.

Pacific Arena

The Japanese attack on Pearl Harbor was the first attack in history conducted solely from aircraft carriers. The attack proved beyond a doubt that aircraft had become an essential part of naval armament. Fortunately, no United States carriers were lost during the attack on Pearl Harbor. The USS *Yorktown*, USS *Wasp*, and USS *Ranger* were in the Atlantic, and the USS *Saratoga* was in San Diego. The USS *Lexington* was about 425 miles south of Midway, and the USS *Enterprise* was 200 miles west of the Pearl Harbor.

The Japanese Imperial Navy captured island after island in the South Pacific as it advanced toward Australia. The U.S. Navy's air arm finally stopped that advance in early May 1942, which set the scene for the turning point of the war in the Pacific.

At the **Battle of Coral Sea**, the two fleets never saw each other—the battle was fought entirely with aircraft launched from carriers. The USS *Lexington* and USS *Yorktown*, jointly under the command of Admiral F. J. Fletcher, launched 93 attack planes against the Japanese carriers *Shoho*, *Shokaku*, and *Zuikaku*. Within 5 minutes, the *Shoho* was hit with 10 heavy bombs and 15 torpedoes. The USS *Lexington*'s radio crackled with the voice of Lieutenant Commander Dixon of the air group, “Scratch one flattop. Dixon to carrier, scratch one flattop!” The other two enemy carriers were so badly damaged that their services to the Japanese fleet were lost for weeks. The United States suffered the loss of an oiler, an escort, and the USS *Lexington*. Even though American losses were heavy in tonnage and men, Australia had been saved from invasion.

The turning point of the war in the Pacific came the next month at the **Battle of Midway**. The Japanese had concentrated on the central Pacific with the intention of occupying Midway Island. The four-carrier Japanese task force was met by a U.S. carrier force. The U.S. force included the carriers USS *Yorktown*, USS *Hornet*, and USS *Enterprise*, plus Navy, Marine, and Army air units from Midway.

Dive bombers proved to be the downfall of the Japanese carrier force. When the battle ended, the Japanese had lost four carriers, one heavy cruiser, and 258 aircraft. The United States had lost 132 aircraft, the destroyer USS *Hammann* (DD 412), and the aircraft carrier USS *Yorktown* (CV 5). In April 1943, another USS *Yorktown* was commissioned; and it continued in the proud tradition established by its predecessor.

In November 1942, the Navy fought the **Battle of Guadalcanal**. After 3 days of bitter fighting, the Japanese naval forces retreated, and U.S. Marines were able to secure the island. With the fall of Guadalcanal, the southern Solomons came under Allied control and Australia was in less danger of attack.

On June 19, 1944, U.S. Task Force 58 (fig. 5-11) caught the combined Japanese fleet steaming out of Tawi in the southern Philippines. The **Battle of the Philippine Sea** ended with the Japanese carrier forces short of ships, planes, gas, and pilots. Unable to replace these, the Imperial Navy was never able to recover from losses, although many desperate battles were to follow.

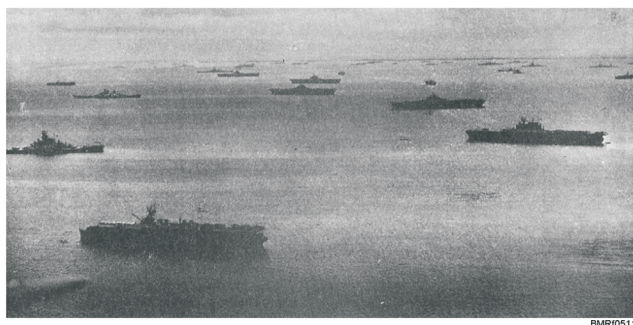


Figure 5-11.—Part of Task Force 58 at anchor in the Marshall Islands, April 1944.

The final blow to the Japanese Navy came October 23, 1944. In a last-chance effort to salvage the Philippines, the Japanese sent a naval force to the **Leyte Gulf** to attack the U.S. Fleet. Their plan backfired and

the operation was a complete failure: It was the deciding catastrophe for their Navy. The loss of the Philippines severed their empire, and the homeland was cut off from its main source of supply from the south. With the losses at **Okinawa** and **Iwo Jima**, the war in the Pacific was approaching its final days.

European Arena

On the Atlantic side of World War II, the U.S. Navy had been fighting off U-boats in the long-running Battle of the Atlantic. The Navy protected convoys bound for Europe. Small escort carriers dubbed “jeeps” were operating with convoys; and their aircraft were successfully attacking German submarines as they surfaced to recharge their batteries. Limited range of land-based airplanes was no longer a significant factor; and distance offered no sanctuary for the U-boat. Eventually, the German submarine menace was contained, and England and Europe got vital supplies and troops.

The Navy’s most notable Atlantic action may have been its part in the June 6, 1944, invasion of Normandy—the largest amphibious operation in history. The greatest armada ever assembled carried out minesweeping, shore-bombardment, amphibious operations, and transported supplies and troops. Those operations let the Allies complete D-Day landings successfully and eventually push on to Germany.

Widespread fighting on the oceans brought about the building of a fleet unlike any in history. This was a swift striking force. It had the advantages of speed, mobility, and surprise, yet it possessed the firepower and protective armor to stand and slug it out with enemy forces. Such a fleet was made up of ships with names synonymous with heroism, such as the USS *Tarawa*, USS *Missouri* (fig. 5-12), USS *Tucson*, USS *Higbee*, and USS *O’Bannon*.

Other Events during WWII

During the 5-year period ending in late 1944, 9 million tons of vessels had been added to the U.S. Navy. One novel development was the large assortment of landing ships that began appearing in the early stages of the war.

Student Notes:



Figure 5-12.—V-J Day aboard USS *Missouri*. Fleet Admiral Nimitz signs the Japanese surrender document on 2 September 1945.

Possibly the most versatile of the many new types of ships built during World War II were the destroyer escorts, now called *frigates*. Other types built during that time included attack cargo ships, transports, barracks ships, net tenders, repair ships, radar pickets, minelayers, and mine sweepers. Those ships, as well as many other types of ships too numerous to mention, changed the shape of the U.S. Navy almost overnight.

When the Japanese attacked Pearl Harbor, 111 American submarines were in commission, 60 in the Atlantic Fleet and 51 in the Pacific. After the invasion of North Africa, U.S. efforts were concentrated in the Pacific, leaving submarine operations in the Atlantic to U.S. Allies. The Pacific became the hunting grounds for American submarine forces.

The number of American submarines during the war peaked at 247. During the war, the United States lost 52 of these boats along with 3,505 submariners. The number of vessels sunk by U.S. submarines played a major part in the American victory in World War II. American submarines sank 1,750 Japanese merchant ships and more than 200 combatants. Those vessels represented 55 percent of the total Japanese tonnage sunk in the war. For an island nation such as Japan, those figures represented a fatal impact.

Radar and sonar came into full use during World War II. The English used them initially to combat German U-boats, but they were also incorporated into the submarine as an attack aid. Sonar has become the most

important of the submarine's senses. Hydrophones listen for sounds from other ships and the echoes of sound waves transmitted from the submarine itself.

Women in the Navy

Twenty-one years after the Yeomanette era, women were needed to fill an acute shortage of personnel caused by rapid expansion of the Navy for World War II. On July 30, 1942, Congress authorized establishment of the Women's Reserve, with an estimated goal of 10,000 enlisted women and 1,000 officers. This new organization had certain congressional limitations. Women could not serve at sea or outside the continental United States and could not exercise military command over men. They could not go beyond lieutenant commander on the promotion ladder. On August 4, 1942, Mildred Helen McAfee was sworn in as Lieutenant Commander, U.S. Naval Reserve, to become Commander of the Women's Reserve.

A boot camp for women volunteers was established at Hunter College in New York City. It was promptly dubbed USS Hunter. Since basic training lasted from 6 to 8 weeks, every other week some 1,680 women seamen had to be housed, fed, and uniformed. (The housing was provided in 17 apartment buildings near the college taken over by the Navy.)

At about the same time, three other schools were commissioned in the Middle West to train enlisted women as Yeomen, Storekeepers, and Radiomen. In July 1943, the Navy Japanese Language School in Boulder, Colorado, opened to women.

Navy women came to work the same hours as Navy men, standing both day and night watches. They stayed in uniform at all times except in the barracks or when engaged in active sports. They were called on to meet the same standards of neatness and good behavior as those required of men in uniform. In short, women were fitted into the Navy as an integral part of the service. They slipped into the same spot in the chain of command as the men they replaced and performed the same duties. This system gave Navy women the same status, responsibilities, and restrictions as men.

The first Reserve classification for women officers was W-V(S), meaning Woman-Volunteer (Specialist).

Student Notes:

Professor Elizabeth Reynard (later LT Reynard) came up with the term *Women Appointed for Voluntary Emergency Service* (WAVES). That term was later changed to *Women Accepted for Voluntary Emergency Service*. The initials WR and the term *Women's Reserve* were official, and some women preferred these terms to the equally official, but less formal, term WAVES.

As the Women's Reserve observed its second anniversary on July 30, 1944, it could look back upon a brief but glowing record of expansion and achievement. During its 2 years of existence, its members had freed enough officers and men to crew a fleet of 10 battleships, 10 aircraft carriers, 28 cruisers, and 50 destroyers.

During World War II, WAVES were directly eligible for 34 different ratings. They performed nearly every conceivable type of duty at 500 naval shore establishments.

THE POSTWAR YEARS

Unlike the placid years following World War I, the postwar period from 1945 to 1950 was a busy one. The United States emerged from the war with an awareness that it couldn't afford any major cutbacks in military strength. The United States had become a nation committed to trading with and protecting other countries. The only way that responsibility could be discharged was by the maintenance of a strong and ready Navy.

Navy women. Since the WAVES had proved their worth during the war, the Navy was reluctant to give up its programs for women. After the war, a number of Navy women were retained in service. However, by the fourth anniversary of the program, only 9,800 remained on active duty.

The Women's Armed Services Integration Act, Public Law 625, was passed by the Senate and the House and signed by the President. It became law June 12, 1948, marking another step forward. That was perhaps the most significant milestone to date in the history of women in the Navy. That act gave women full partnership on the Navy team and abolished the Women's Reserve. For the first time, women became a part of the Regular Navy.

At the same time the Regular Navy opened to women, the Reserves established a program for women volunteers. The new laws authorized the transfer of all

members to appropriate components of the permanent Naval Reserve.

Antarctic exploration. Following World War II, the U.S. Navy turned its attention once again to the exploration of Antarctica. In 1946, Operation Highjump got underway. Seaplanes flying from the open sea and the airstrip at Little America photographed the interior and coastline of the "white continent."

Naval aviation. Naval researchers continued to develop new, specialized ships and new planes capable of providing swift aid to Allies in a world of uneasy peace. All naval aircraft, featuring the most advanced radar and sonar systems, were redistributed into patrol, attack, and fighter squadrons.

Jet aircraft were perfected during the postwar years. In June 1948, a squadron of FH-1 *Phantoms* qualified for carrier operations aboard USS *Saipan* (CVL-48). Carrier flight decks were redesigned to launch and recover jets.

Submarines and nuclear power. During this time, the Navy was speeding development of the most revolutionary advancement in the history of submarines—nuclear power. Early in World War II, as part of the Navy's initial research on the atom, proposals were made to develop atomic power for use afloat. However, most of that work was diverted to development of the atomic bomb.

Nuclear power was the long-awaited propulsion source for the submarine. It turned the submersible surface ship into a true submarine, capable of almost indefinite operation. It was no longer bound to the earth's atmosphere.

In September 1947, Captain H. G. Rickover informally requested the first study of the application of a high-pressure, water-cooled reactor for a submarine. Personnel of the Daniels Pile Division at Oak Ridge, Tennessee, undertook that study.

In January 1948, the Department of Defense requested that the Atomic Energy Commission undertake the design, development, and construction of a nuclear reactor that would propel a naval submarine. In December 1948, the Commission contracted the Westinghouse Electric Corporation to develop design, construct, operate, and test a prototype nuclear propulsion plant. The outcome of those efforts was USS *Nautilus*.

Student Notes:

REVIEW 5 QUESTIONS

- Q1. What was the significance of the Battle of Coral Sea?
- Q2. List the other major naval battles in the Pacific during World War II and describe their significance.
- a.
- b.
- c.
- d.
- e.
- Q3. Describe the role of the U.S. Navy in the Atlantic Ocean during World War II.
- Q4. The shape of the Navy changed during World War II because of new ships introduced during this period. List some of the types of ships that were introduced during this period.
- Q5. What is the significance of the date 30 Jul 43?
- Q6. What is the significance of the Women's Armed Services Integration Act?

THE NAVY FROM 1950 TO 1990s

Learning Objective: When you finish this chapter, you will be able to—

- Recognize the roles and responsibilities of the Navy from 1950 to 1990 to include the Korean Conflict, Vietnam, and the Persian Gulf.

As the second half of the 20th century arrived, the United States had been at peace for 5 years, and the Navy was involved in many scientific pursuits. However, scientific and exploratory pursuits were interrupted by the outbreak of the Korean Conflict.

THE KOREAN CONFLICT

Supported by the United Nations, the United States agreed to give the Republic of Korea air and naval assistance. Three days after that decision, June 29, 1950, the cruiser USS *Juneau* and the destroyer USS *Dehaven* fired the first shots of the war.

When North Korea attacked south of the 38th parallel, the Navy was called on for close air support to knock out bridges and block enemy supply routes. Navy

Student Notes:

jets flew from carriers for the first time in a war situation. Unlike World War II, the enemy didn't have the capability to strike our carriers, so pilots launched their Corsairs and Banshees on the first sustained ground-support missions in history.

The helicopter also came of age during the Korean Conflict. First studied and developed in 1942 when the Navy received four Sikorskys, the choppers were spotters for artillery. In Korea, they flew emergency supply runs and took part in direct combat duties. Later, the helicopter was used as a cargo transport between ships during underway replenishment, search and rescue missions, and ASW exercises. Korea was the testing ground for the helicopter and many other innovations our forces currently use.

On September 15, 1950, under massive shore bombardment by U.S. Navy ships, the amphibious landings at Inchon began. The successful operation cut enemy communications, split enemy forces, and dissolved enemy resistance in that area. The shelling of supply roads far inland by the battleship USS *Missouri* demonstrated a new tactical concept. That concept was the Navy's ability to intervene successfully in a ground operation far ashore.

The Korean Conflict (fig. 5-13 and fig. 5-14) lasted until July 1953. Other events were happening in the Navy while the war was being waged. For example, a program was established giving outstanding enlisted women the opportunity to receive commissions in the Regular Navy.



Photograph courtesy of Mr. Francis Jeffery.

Figure 5-13.—Korean War Memorial.



Photograph courtesy of Mr. Francis Jeffery.

Figure 5-14.—Korean War Memorial—soldier.

KOREA TO VIETNAM

The 1950s was a time of change. By the end of the decade, most operational aircraft in the attack and fighter arsenals of the sea service were jets. More and more angled-deck carriers were authorized, and new deck-edge elevators allowed simultaneous takeoffs and landings.

The USS *Nautilus*, the first nuclear submarine, was first put to sea on January 17, 1955. Under Commander Eugene P. Wilkinson, the USS *Nautilus* transmitted the historic signal, "Underway on nuclear power." On its shakedown cruise in May 1955, the USS *Nautilus* steamed submerged from New London, Connecticut, to San Juan, Puerto Rico. It traveled over 1,300 miles in 84 hours—a distance 10 times greater than the record for continuously submerged travel by any previous submarine.

After more than 2 years of operation and evaluation, the USS *Nautilus* was refueled in April 1957. On its first nuclear core, it steamed a total of 62,562 miles; it made more than half of that cruise while totally submerged. A conventionally powered submarine the size of the USS *Nautilus* would have required over 2 million gallons of fuel oil to duplicate that feat. A train of tank cars over a mile and a half long would have been necessary to transport that amount of fuel.

Student Notes:

On August 12, 1958, the USS *Nautilus* completed a history-making transpolar voyage from Pearl Harbor, Hawaii, to Portland, England. After diving under the ice near Point Barrow, Alaska, on August 1, 1958, it became the first submarine to reach the geographic North Pole.

Nuclear submarines produced after the USS *Nautilus* continued to pioneer new areas of submarine operations. The USS *Seawolf*, the Navy's second nuclear-powered submarine, operated as an active unit of the Atlantic Fleet. On October 6, 1958, it completed a record-breaking 60-day run, traveling a distance of 13,761 miles submerged.

While the USS *Nautilus* was still undergoing operational testing, the Navy began development of a ballistic missile of intermediate range. Brought from conception to initial operation in 5 years' time, the Polaris fleet ballistic missile (FBM) weapons system was mated with nuclear propulsion. That development produced a virtually invulnerable missile-firing submarine. Today, the missile-firing submarine constitutes one of the highest priority elements of the United States' deterrent capability; that is, a deterrent to nuclear conflict.

Each Polaris submarine could launch 16 two-stage ballistic missiles powered by solid-fuel rocket motors, containing a self-contained inertial guidance system. The Polaris provided a combined explosive power greater than the total of all the bombs dropped by all aircraft during World War II. Nuclear propulsion enabled these Polaris submarines to remain on patrol for extended periods, hidden beneath the surface of the sea, ready to launch their missiles.

On station, a Polaris submarine maintained complete radio silence, receiving radio messages while submerged, but not transmitting to prevent giving away its location. Each ship had two complete crews, the Blue and the Gold, of about 130 people each. The Polaris operated on a system that reflected a major change in the Navy's traditional ship-manning methods. The crews alternated on approximately 3-month-long deployments, providing maximum on-station time for the submarine. Its endurance was limited only by the limitations of its personnel.

Submarines were followed by the world's first nuclear-powered surface warships. They were the

guided-missile cruiser USS *Bainbridge*, launched April 15, 1961; the guided-missile cruiser USS *Long Beach*, commissioned September 9, 1961; and the carrier USS *Enterprise*, commissioned November 25, 1961. On October 3, 1964, those three ships ended Operation Sea Orbit, a 64-day long, around-the-world, unrefueled cruise.

It was during this time that space exploration (fig. 5-15) began. The *Vanguard*, a 3 1/2-pound payload, was developed by the Naval Research Laboratory. On March 17, 1958, it was placed into orbit to test a system designed to launch earth satellites during the international geophysical year (IGY). Now the oldest man-made satellite in orbit, it is expected to remain aloft for 2,000 years.



Figure 5-15.—Seven original NASA astronauts.

Naval officers also participated in space exploration. On May 5, 1961, Commander Alan B. Shepard, Jr., made America's first suborbital flight. The 15-minute shot in *Freedom 7* went 116.5 miles into space.

VIETNAM

Although the United States was at peace following the Korean Conflict, events were building that would plunge the country into another conflict. Since 1959, the French had been involved in fighting in a country most Americans had never heard of—Vietnam.

Student Notes:



Photograph courtesy of Mr. Francis Jeffery.
Figure 5-16.—The Wall .

Americans were introduced to Vietnam in 1965. In that year, the United States entered the Vietnam Police Action. This police action, which caused conflict at home as well as on the battlefield, lasted until January 1973. Figures 5-16 through 5-19 commemorate American actions in Vietnam.

The Navy's operations in support of South Vietnam's struggle against communist military aggression consisted mainly of gunfire support and carrier aircraft operations. These operations included coastal interdiction patrols against North Vietnamese ships moving troops and supplies to the south. They also included riverine operations by a swarm of various types of patrol craft in the maze of waterways in South

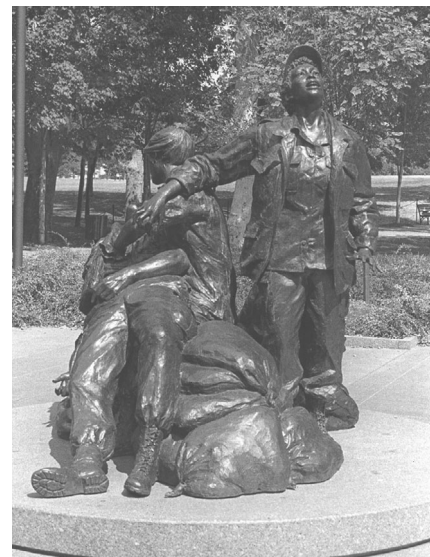


Photograph courtesy of Mr. Francis Jeffery.
Figure 5-18.—Vietnam memorial—soldier.

Vietnam's delta area. (By early 1972 all boats and the responsibility for delta operations had been turned over to the South Vietnamese Navy.) Naval construction battalions (Seabees) built several military bases and constructed water and sanitary facilities for local communities. Often, as in World War II, they engaged in fighting as they worked. Navy medical personnel served in the field with Marine Corps and Seabee units, as they did in World War II and in the Korean Conflict. They often performed their duties under fire and often sacrificed themselves to protect their charges from further harm. As in previous wars, U.S. Navy service and amphibious forces transported over 90 percent of the personnel and supplies used in support of that conflict.



Photograph courtesy of Mr. Francis Jeffery.
Figure 5-17.—Vietnam memorial.



Photograph courtesy of Mr. Francis Jeffery.
Figure 5-19.—Women in war—memorial.

Student Notes:

During the Vietnam era, five new attack carriers joined the fleet, including the world's first nuclear-powered carrier, USS *Enterprise* (CVN 65).

Vietnam was a different kind of war, a war in which the Navy's role was ever changing. The Navy used both new and old aircraft—OV-10 *Broncos*, propeller-driven *Skyraiders*, attack planes like A-4 *Skyhawks* and A-7 *Corsairs*, and fighter planes like F-8 *Crusaders*. It used various support aircraft for ASW, early warning, and advance communications links.

OTHER DEVELOPMENTS

Even during the Vietnam Police Action, the Navy was involved in exploration and development. Former Navy pilot Neil Armstrong became the first man to set foot on the moon on July 20, 1969. On November 14, 1969, the all-Navy *Apollo 12* crew lifted off from the Kennedy Space Center on the second lunar expedition.

The crew consisted of Commanders Charles Conrad and Richard Gordon and Lieutenant Commander Alan Bean. Another all-Navy crew (Captain Charles Conrad, Jr., and Commanders Joseph P. Kerwin and Paul J. Wietz) splashed down on the first Skylab mission on June 22, 1973. The crew set numerous records and accomplished virtually all of its objectives.

Space. The Navy stands tall in the first 10 years of manned space exploration. Records show that five of the six men to walk on the surface of the moon during that time had formerly been trained as naval aviators.

Research. In the 1960s, Navy scientific undersea research resulted in the USS *Alvin*. The USS *Alvin* was the Navy's first deep diving vehicle. It was successfully tested at 6,000-foot depths on July 20, 1965. The next month, 10 aquanauts, including astronaut Commander M. Scott Carpenter, entered the Sealab II capsule, 205 feet below the surface of the sea off the coast of La Jolla, California. Carpenter remained underwater for 30 days in a successful experiment of submerged living and working conditions. On January 25, 1969, the first nuclear-powered, deep-submergence research and ocean-engineering vehicle, NR-1, was launched. That five-man vessel can operate for weeks at a time at great depths.

Weapons. In early 1965 came the announcement of the proposal to develop a new missile for the fleet

ballistic missile system—the Poseidon. The growth potential of the ballistic missile submarine launching system has enabled the Poseidon to fit into the same 16-missile tubes that carried the Polaris. Like the Polaris A-3, it is able to reach any spot on earth from its nuclear-powered hiding place. Its increased accuracy, greater payload, and improved ability to penetrate enemy defenses make the Poseidon more effective than the Polaris.

On July 19, 1974, construction of the new Trident undersea nuclear weapons system commenced. The Trident system consists of three principal elements: a nuclear-powered fleet ballistic missile submarine (SSBN), a strategic weapons system (the missile), and an integrated logistics support system. The first Trident submarine was the USS *Ohio* (SSBN-726), a nuclear powered fleet ballistic missile submarine. The USS *Ohio* was delivered to the Navy in 1981. Since then, the Navy has accepted delivery of 10 more Trident submarines.

THE PERSIAN GULF

As with other wars, conflicts, or areas of military aggression, U.S. naval forces operate in the hostile area of the Persian Gulf. U.S. naval forces have been present in this vital oil-rich region for many years.

The events leading to an increased number of U.S. naval units in the Persian Gulf (fig. 5-20) began in the mid 1980s. Iran and Iraq were at war. Iraq had begun attacking Iranian oil facilities and tankers; in response, Iran began attacks against ships flying flags of countries sympathetic to Iraq. U.S. Navy ships quickly began escort and protection operations for U.S.-flagged tankers.



Figure 5-20.—Persian Gulf award.

Student Notes:

As the war between Iran and Iraq widened, so did the dangers to U.S. Navy ships operating in the Gulf. Iran started laying mines in the Gulf and began using small suicide boats to raid U.S. tankers and naval units. Iraq also possessed weapons that could cause tremendous damage and casualties. These weapons proved costly to the United States. In May 1987, an Iraqi aircraft mistakenly fired two missiles that struck USS *Stark* (FFG-31), killing 37 sailors and wounding many more. In April 1988, Iran's use of mines caused considerable damage to USS *Samuel B. Roberts* (FFG-58). Until that time, the U.S. Navy's presence was largely defensive. When forced to take offensive action, the United States acted quickly. U.S. Navy ships bombarded an Iranian oil platform being used as a command post and sank a mine-laying vessel carrying out operations.

DESERT SHIELD/DESERT STORM

On 2 August 1990, the president of Iraq Saddam Hussein, ordered the world's fourth largest army from Iraq to invade the country Kuwait. The United States deployed a major joint force which served as the foundation for a powerful 33-nation military coalition to stem Iraq's brutal aggression. Operation Desert Shield/Desert Storm was born. The United States Navy provided the sea control and maritime superiority that paved the way for the introduction of U.S. and allied air and ground forces. The United States offered strong leadership for the multinational naval force.

Desert Shield/Desert Storm brought together the largest force of Navy warships assembled in a single theater since World War II, adding a powerful punch to Navy forces already on scene the night of Iraq's invasion of Kuwait. Long-established maritime superiority facilitated the largest, fastest strategic sealift in history, with more than 240 ships carrying more than 18.3 billion pounds of equipment and supplies to sustain the forces of Desert Shield/Desert Storm.

Under the Navy's Total Force concept more than 21,000 naval reservists were called to active duty in support of Desert Shield/Desert Storm. Serving in specialties from medicine to mine warfare, reservists worked alongside their active duty counterparts in the

Persian Gulf. Others filled critical vacancies on the home front.

Saddam Hussein's rejection of diplomatic efforts to solve the crisis led to the final decision to restore Kuwait's sovereignty by military force. The ensuing air war and the effects of the economic embargo decimated Iraq's military infrastructure, severed communication and supply lines, smashed weapons arsenals, and destroyed morale. Some of the first shots fired were from Navy ships in the Persian Gulf and Red Sea, as they launched salvos of Tomahawk cruise missiles against pre-programmed targets in Iraq.

After an impressive 38-day air campaign, the ground offensive began with allied forces sweeping through Iraqi defenses in blitzkrieg fashion. The allied push into Kuwait and southern Iraq was made easier by the amphibious forces on station in the Persian Gulf. The threat they posed forced tens of thousands of Iraqi troops to maintain positions along the Kuwaiti coastline to defend against attack from the sea. The Iraqi army was crushed after a mere 100 hours. Iraqi troops—tired, hungry and war-weary from 6 months of economic blockade and more than a month of relentless allied bombing—surrendered by the thousands. Less than 7 months after the Iraqi invasion, Kuwait was once again free.

It is likely that Navy ships will continue to represent and protect U.S. interests in the region for the foreseeable future.

REVIEW 6 QUESTIONS

- Q1. List some of the Navy's roles during the Korean Conflict.
- a.
 - b.
 - c.
 - d.

Student Notes:

Q2. List some of the Navy's missions during the Vietnam Police Action.

- a.
- b.
- c.

Q3. What are other actions the Navy was involved with during the same timeframe as the Vietnam Police Action?

- a.
- b.

Q4. What service did the Navy provide during the Iraq – Iran War?

Q5. List the Navy's contributions during Operation Dessert Storm.

- a.
- b.
- c.

SUMMARY

The United States Navy began more than 200 years ago with two ships, but today we are the finest naval force in history. The history of the Navy is a big story and an exciting one. We've only rippled the surface here, but maybe we've stimulated your curiosity enough that you will want to take a closer look at your Navy's past. If so, visit your ship or station library. You will find many fine books on naval history there.

From Flamborough Head to the Persian Gulf, the U.S. Navy has always been "on station" in time of trouble. The U.S. Navy's mission of preparedness to conduct prompt and sustained combat operations at sea means the U.S. Navy will be present at the first sign of conflict.

U. S. Navy ships continued to change with even greater momentum, ushering in another new era—that of nuclear propulsion, jet power, rockets, and guided missiles. New types of ships have emerged—ships such as guided-missile cruisers, tactical command

ships, and helicopter flattops. The era of the 50s, 60s, 70s, 80s, and on into the 90s has seen the emergence of the nuclear Navy.

The heart of today's nuclear fleet is a highly complicated unit known as the nuclear reactor, which offers the following advantages:

- Almost unlimited steaming endurance at high speed. Nuclear ships have increased flexibility; an ability to obtain ammunition, aviation fuel, and other supplies from remote places in a minimum amount of time; and an attack ability in a much greater area.
- Reduced vulnerability. Nuclear ships need not remain exposed as long as nonnuclear vessels during replenishment. They can maneuver to avoid attack.
- Reduced dependence on logistic support. Nuclear ships require fewer mobile support forces.
- Greater attack effectiveness. Nuclear ships can remain in battle areas for a greater length of time and have a greater ability to exploit weather conditions to their advantage.
- Elimination of huge funnels. That provides more room for such items as a big, powerful radar.
- Power available upon command. Nuclear reactors eliminate the need to order "more boilers on the line" a half hour before full power is desired. Heat is produced in the nuclear reactor; in turn, steam and power is produced with little delay. Reduction from full power to one-third or stop is equally responsive.
- Reduced maintenance. The absence of corrosive stack gases cuts down on the wear and tear of the ships and a lot of at-sea and in-port repairs.

The Navy has been advancing in other areas of the surface fleet as well. An example is the new amphibious assault ships (LHAs). The LHAs are the largest and fastest amphibious ships in the Navy inventory and offer the greatest operational versatility in the history of amphibious warfare.

The size of the LHAs alone is impressive. The first of the LHAs, the USS *Tarawa*, is 820 feet long and 106 feet wide. The high point of its mast is 221 feet above the keel, and it has a full displacement of 39,300 tons. It can carry a large landing force with all its equipment and supplies, landing them either by helo or amphibious craft or both.

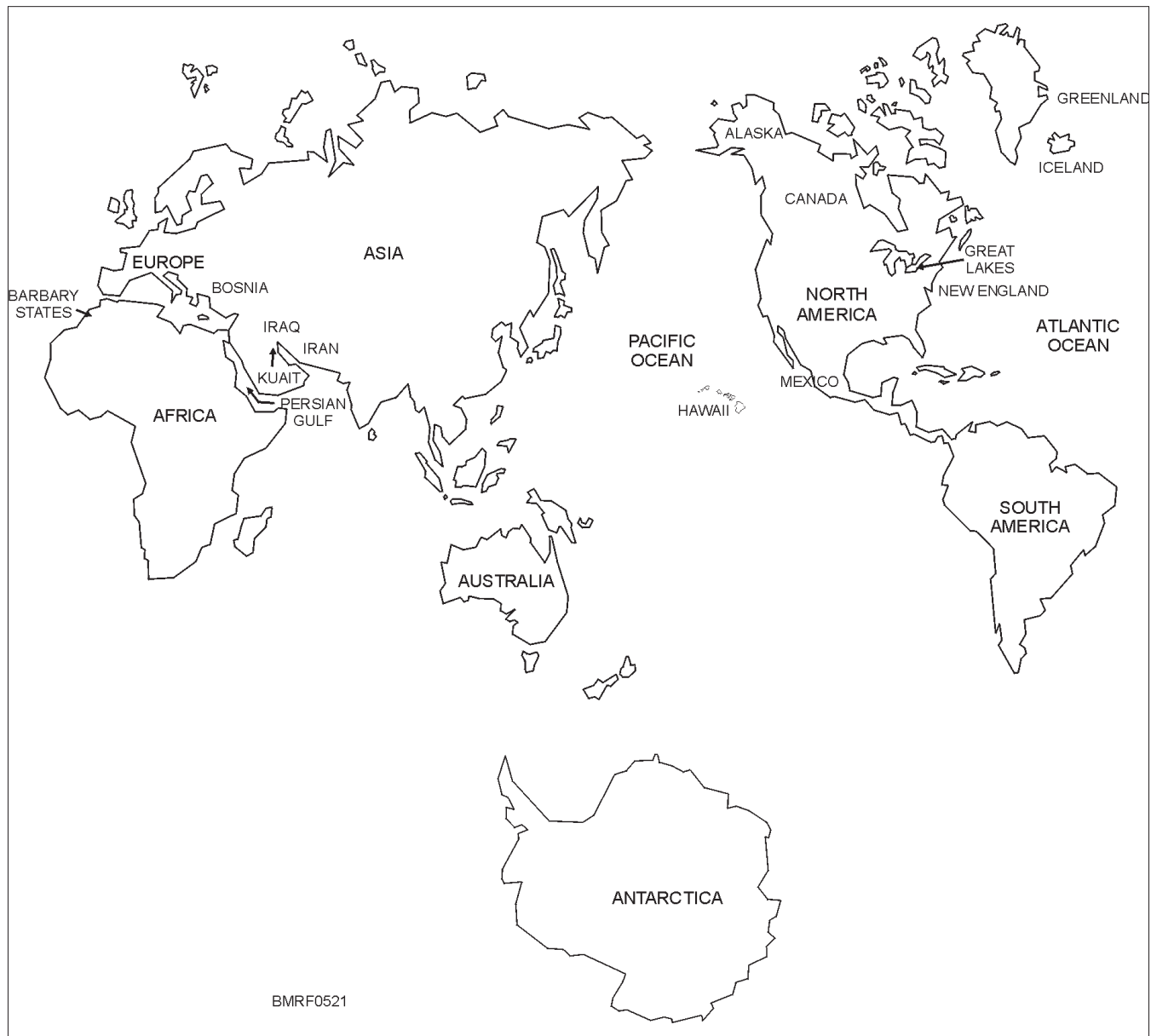
The primary advantage of these general-purpose assault ships is tactical integrity—getting a balanced force to the same point at the same time.

Spruance-class ships are the Navy's prime ASW destroyers. They are fitted with our most powerful sonar, helicopters, our best ASW weapons, and the Harpoon surface-to-surface missile system.

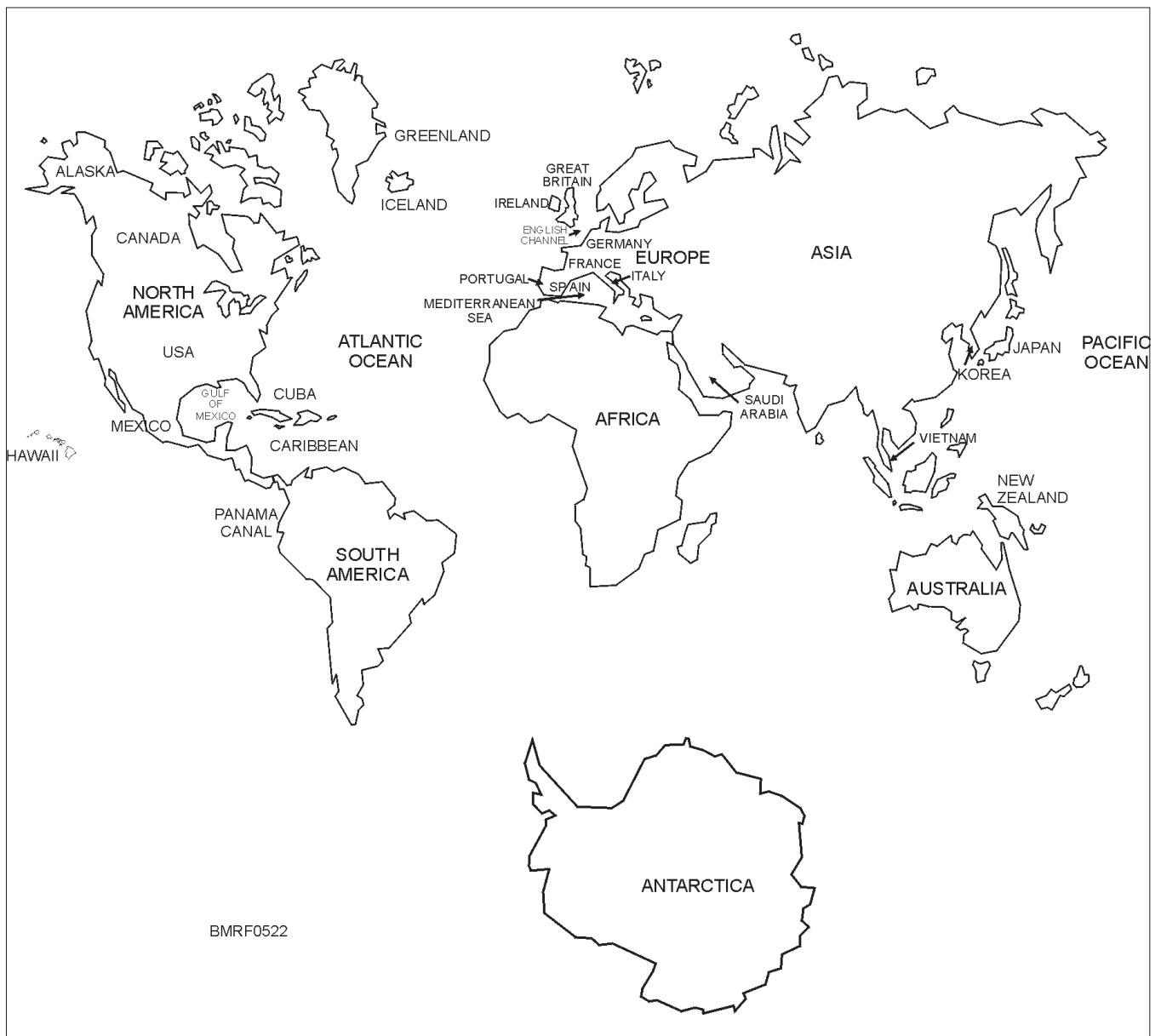
The most recent additions to the surface fleet are the Ticonderoga-class cruisers and the Arleigh Burke-class destroyers. Both are powered by gas turbines and are capable of high-speed transits. They are also outfitted

with the Navy's new Aegis weapons system. That system has the capability to track and engage multiple targets, using a complex system of radars, missiles, guns, torpedoes, and self-defense systems. These capabilities make these cruisers and destroyers the most survivable units of today's surface fleet.

Our ability to quickly deploy large carrier battle groups and surface action groups quickly will assure our allies of our ability to exercise sea control. That ability, coupled with the U.S. submarine forces' strategic deterrence objective, will allow the United States and its allies the ability to deter further hostile action worldwide.



Student Notes:



REVIEW 1 ANSWERS

- A1. The United States Navy was formed because **the Second Continental Congress realized that the survival of the colonies as independent from England depended on the formation of naval forces.**
- A2. During the late 18th century, battleships were classified as **ships-of-the-line.**
- A3. The craft developed in 1775 was **a warfare submarine, named the *Turtle*, and invented by David Bushnell.**
- A4. This raid was the **first amphibious operation carried out by the American Navy and Marines.**

- A5. The first official recognition of the American Stars and Stripes flag by a foreign nation was given by (a) **France** (b) to the **USS *Ranger*.**

REVIEW 2 ANSWERS

- A1. After the Revolutionary War, **the U.S. Navy defended America's small merchant ship fleet from the Barbary pirates.**
- A2. Between the Revolutionary War and the War of 1812, the U.S. Navy was involved with the—
 - a. **Quasi War with France** and
 - b. **Barbary States War.**

- A3. Lord Nelson said that the **operation executed by LT Stephen Decatur and 84 seamen by slipping into the harbor of Tripoli and burning the captured frigate *Philadelphia*** was “one of the most bold and daring acts of the age.”
- A4. Two actions of the U.S. Navy during the War of 1812 were—
- The sea battle between the American frigate *USS Constitution* and the British frigate *Guerriere* and**
 - The victory of Captain Oliver Hazard Perry over the British squadron on Lake Erie.**
- A5. During the Mexican-American War, the Navy **blockaded the port cities on the Gulf** and the “**Mosquito Fleet**” **provided protective action during the first large-scale amphibious operation in U.S. military history.**

REVIEW 3 ANSWERS

- A1. During the last part of the 19th century, naval developments included—
- Introduction of ironclad ships**
 - Introduction of riverboats, rams, and gunboats**
 - Development of submarines**
 - Construction of steeled-hull protected cruisers, signaling the end of the ironclads**
 - Development of self-propelled torpedo and long-range torpedo boats**
 - Development of the internal combustion engine for ships**
- A2. After developing the ironclad, the Confederate Navy developed the **submarine.**
- A3. During the Civil War **Battle of Mobile bay, Admiral Farragut** gave order, “**Damn the torpedoes! Full speed ahead.**”

- A4. Alfred T. Mahan influenced naval strategy through his books that stressed the idea that **without control of the seas, a nation couldn’t expect victory. He was one of the first instructors at the Naval War College and shared his knowledge on sea power and the importance of understanding naval needs.**
- A5. The Spanish-American war began when the ***Maine* was blown up and 250 Sailors were killed.**
- A6. **Commodore George Dewey** was instrumental in quickly ending the Spanish-American War.

REVIEW 4 ANSWERS

- A1. The development of **airplanes** occurred at this time.
- A2. The U.S. Navy was deployed to **stop German U-boats from practicing unrestricted warfare and terrorizing the seas.**
- A3. During this war, **destroyers were used as the main defense against German U-boats. They also served as an escort for troop ships and supply convoys for the allies.**
- A4. During this war, the air forces **supported surface antisubmarine forces.**
- A5. During this war, **women enlisted in the Navy as Yeoman (F), releasing enlisted men for active service at sea.**

REVIEW 5 ANSWERS

- A1. The Battle of Coral Sea was fought by **aircraft, all of which were launched from carriers. This battle saved Australia from being invaded by the Japanese.**
- A2. The major naval battles in the Pacific during World War II and their significance is as follows:
- Battle of Guadalcanal—The Solomon Islands came under allied control and the danger of Australia coming under Japanese attack was lessened**

Student Notes:

- b. **Battle of the Philippine Sea—Heavy losses of ships, aircraft, and pilots paralyzed the Japanese Fleet**
 - c. **Battle of Leyte Gulf—Deciding blow to the Japanese Navy. Losing control of the Philippines meant that the Japanese homeland was cut off from its main source of supplies from the south.**
 - d. **Battle of Midway—The turning point of the war in the Pacific.**
 - e. **The Battles of Okinawa and Iwo Jima—Defeat of the Japanese in these battles signaled an approach to the end of the war.**
- A3. During World War II, the U.S. Navy **protected convoys bound for Europe from German U-boat attack.**
- A4. Some of the types of ships that changed the shape of the Navy changed during World War II include **landing ships, frigates, attack cargo ships, transport ships, barracks ships, net tenders, repair ships, radar pickets minelayers, and mine sweepers.**
- A5. On 30 Jul 1943, Congress authorized the **establishment of the Women's Reserve to fill acute shortages of personnel during World War II.**
- A6. The Women's Armed Services Integration Act **abolished the Women's Reserve and gave women full partnership in the Navy.**
- b. **Navy helicopters spotted enemy artillery**
 - c. **Navy ships supported the amphibious landing at Inchon through massive shore bombardment before ground forces landed**
 - d. **The Navy successfully used its battleships to intervene in ground operations far ashore.**
- A2. Some of the Navy's missions during the Vietnam Police Action included—
- a. **Surface ship-based gunfire support**
 - b. **Carrier-based aircraft operations**
 - c. **Coastal interdiction patrols against the enemy**
- A3. Other actions the Navy was involved with during the same timeframe as the Vietnam Police Action include—
- a. **The manned space exploration program**
 - b. **Manned undersea exploration, using deep submergence vehicles and underwater laboratories**
- A4. During the Iraq – Iran War, the Navy **escorted and protected oil tankers in transit to and from the Persian Gulf against Iranian attacks.**
- A5. The Navy's contributions during Operation Dessert Storm included—
- a. **Providing sea control**
 - b. **Naval gunfire support for sea to ground forces**
 - c. **Surface and subsurface missile attacks on selected targets in Iraq**

REVIEW 6 ANSWERS

- A1. Some of the Navy's roles during the Korean Conflict included—
- a. **Providing close air support to knock out bridges and block enemy routes with the use of jets from carriers**